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| APPLICATION NO.   | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 09/942,735  | 08/31/2001  | Horst-Udo Hain       | 1454.1080           | 8401             |
| 21171   | 7590        | 01/03/2005           | EXAMINER            |                  |
| STAAS & HALSEY LLP<br>SUITE 700<br>1201 NEW YORK AVENUE, N.W.<br>WASHINGTON, DC 20005 |             |                      | AZAD, ABUL K        |                  |
|   |             |                      | ART UNIT            | PAPER NUMBER     |
|   |             |                      | 2654                |                  |

DATE MAILED: 01/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

|                              |                                      |  |  |
|------------------------------|--------------------------------------|--|--|
| <b>Office Action Summary</b> | <b>Application No.</b><br>09/942,735 | <b>Applicant(s)</b><br>HAIN, HORST-UDO |  |
|                              | <b>Examiner</b><br>ABUL K. AZAD      | <b>Art Unit</b><br>2654                |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 31 August 2001.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-27 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 August 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>8/31/01, 3/3/03</u> . | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Double Patenting*

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 1-27 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-18 of copending Application No. 09/942,736. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claimed subject matter are similar, however changing the language is obvious to one of ordinary skill in the art without any criticality.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1, 3-5, 7, 8, 10-12, 14, 15, 17-19, 21, 22 and 24-27 are rejected under 35 U.S.C. 102(b) as being anticipated by Lin et al. (US 6,076,060).

As per claim 1, Lin teaches, “a method for grapheme-phoneme conversion of a word which is not contained as a whole in a pronunciation lexicon”, comprising:

“decomposing the word into subwords” (col. 9, lines 6-20);

“performing grapheme-phoneme conversion of the subwords to obtain transcriptions of the subwords” (col. 9, lines 6-20);

“sequencing the transcriptions of the subwords are sequenced to produce at least one interface between the transcriptions of the subwords” (col. 14, lines 13-21);

“determining phonemes of the subwords bordering on the at least one interface” (col. 14, lines 13-21);

“determining graphemes of the subwords which generate the phonemes bordering on the at least one interface” (col. 14, lines 13-21); and

“recalculating grapheme-phoneme conversion of the graphemes bordering on the at least one interface” (col. 14, lines 13-38).

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As per claim 3, Lin teaches, "wherein said recalculating is performed using a lexicon" (Fig. 4, element 34).

As per claim 4, Lin teaches, "wherein said decomposing includes searching for the subwords of the word in a database containing phonetic transcriptions of words, and wherein said performing includes selecting a phonetic transcription recorded in the database for each subword found in the database" (Fig. 4, elements 30, 31 and 32).

As per claim 5, Lin teaches, "wherein in addition to the subword , the word has at least one further constituent which is not recorded in the database, and wherein said method further comprises phonetically transcribing the at least one further constituent by an out-of-vocabulary method" (Fig. 4, element 27).

As per claim 7, Lin teaches, wherein the word is decomposed into subwords of a predefined minimum length" (col. 7, lines 24-42).

As per claims 8,10-12, 14, 15, 17-19, 21, 22, and 24-27, they are interpreted and thus rejected for the same reasons set forth in the rejection of claims 1, 3-5 and 7.

### ***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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6. Claims 2, 6, 9, 13, 16, 20 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lin et al. (US 6,076,060) as applied to claims 1, 5, 8, 12, 15, 19 and 22 above, and further in view of Karaali et al. (US 5,913,194).

As per claims 2, 6, 9, 13, 16, 20 and 23 Lin does not explicitly teach, text-to-speech conversion performed by a neural network. However, Karaali teaches, text-to-speech conversion performed by a neural network (abstract). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use neural network because Karaali teaches his invention to reduce size of the neural network without substantial degradation in the quality of the generated synthetic speech (col. 2, lines 8-12).

#### ***Contact Information***

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Abul K. Azad** whose telephone number is **(703) 305-3838**.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Richemond Dorvil**, can be reached at **(703) 305-9645**.

Any response to this action should be mailed to:

**Commissioner for Patents**

**P.O. Box 1450**

**Alexandria, VA 22313-1450**

Or faxed to:

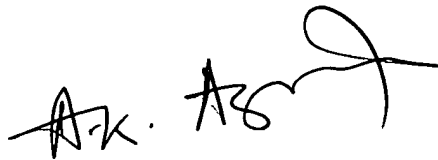
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**(703) 872-9314**

(For informal or draft communications, please label "PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to 2121 Crystal Drive, Arlington,  
VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application should  
be directed to the Technology Center's Customer Service Office at telephone number  
**(703) 306-0377.**

A handwritten signature in black ink, appearing to read 'AK. Azad', with a large, stylized flourish extending from the end.

Abul K. Azad

December 23, 2004